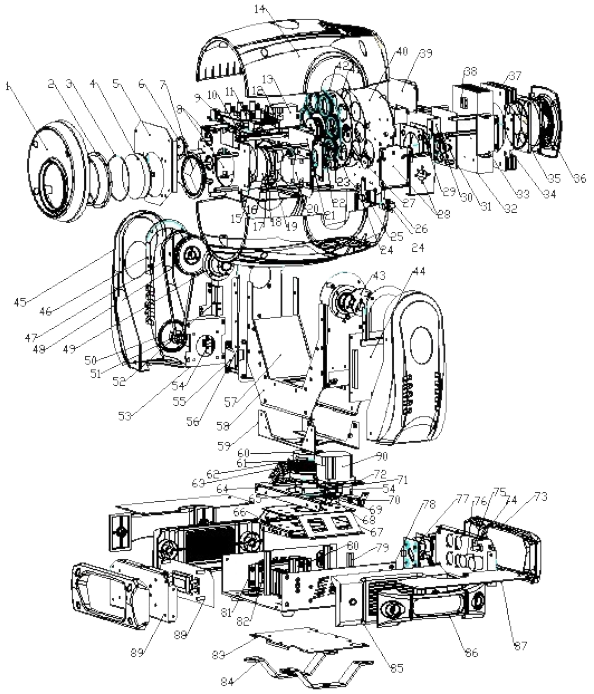
5 APPENDIX

5.1 MAINTENANCE



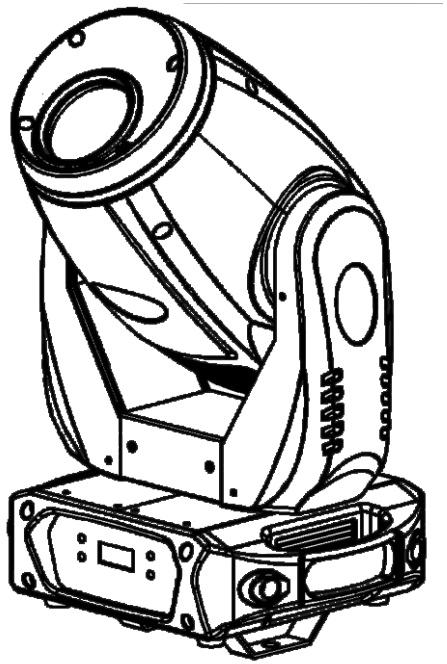
No	ITEM
1	plastic front cover of head
2	lens caps
3	front lens jump ring
4	Φ80 biprism
5	front lens fixed plate
6	Prism driving wheel
7	prism group
8	prism motor
9	synchronous belt
10	focus driven wheel group
11	driver board
12	focus driving wheel
13	focus lens motor
14	plactic head cover)

No	ITEM
15	focus lens bracket
16	Φ62 flat convex lens
17	60 concave-convex lens
18	focus lens gasket
19	focus lens caps
20	Rotating gobo motor
21	gobo wheel bracket 2
22	synchronous belt
23	rotating gobo wheel
24	hall board
25	hall bracket 2
26	hall bracket 3
27	spinning pulley
28	Connection frame group

No	ITEM
29	fresnel
30	light lens holder
31	15° lens(7in1)
32	cooling fin
33	fixed frame for plastic head cover
34	fan bracket
35	90×90 f an
36	plastic back cover of head
37	clump weight
38	fixed frame for thermal protection device
39	driver board
40	gobo wheel bracket 1
41	color wheel
42	static gobo wheel

USER MANUAL

MS-400



CE RoHS

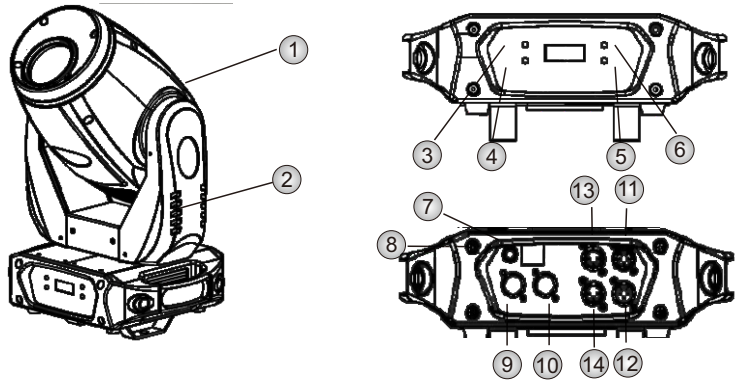
Please Read Over This Manual Before Operating The Light Fixture

1 PRODUCT SPECIFICATIONS

1.1 PRODUCT SPECIFICATIONS

◆Voltage:AC100~240V，50/60Hz
◆Max Power:130W
◆ Size:360X270X520mm
◆ Weight:12kg

1.2 PRODUCT FEATURES



No	ITEM	No	ITEM	No	ITEM
1	Head	6	Up	11	DMX 3-PIN signal input
2	Side arm	7	Switch	12	DMX 3-PIN signal output
3	Menu	8	Fuse holder	13	DMX 5-PIN signal input
4	Enter	9	Power input	14	DMX 5-PIN signal output
5	Down	10	Power OUT		

CHANNEL	VALUE	FUNCTION
6		**GOBO 2 ROTATION**
	0⇔60	360 °indexing
	61⇔150	Clockwise rotate from slow to fast
	151⇔165	No function
	166⇔255	Anti-clockwise rotate from slow to fast
7		**PRISM & PRISM ROTATION**
	0⇔4	White light
	5⇔9	Prism but not turn
	10⇔127	Anti-clockwise rotate from slow to fast
	128⇔132	Prism but not turn
	133⇔255	Clockwise rotate from slow to fast
8	0⇔255	**FOCUS** Far ——— Near
9	0⇔255	**DIMMER** Dark ——— Bright
10		**STROBE**
	0⇔31	Close
	32⇔63	Open
	64⇔95	Strobe: Slow > Fast
	96⇔127	Open
	128⇔159	Rulse strobe effect: Slow > Fast
	160⇔191	Open
	192⇔223	Random strobe effect: Slow > Fast
	224⇔255	Open
11		**CONTROL**
	0⇔19	No function (After 3 S move light show board curve is preferred)
	20⇔39	Pan/tilt black activated
	40⇔59	Pan/tilt black deactivated
	60⇔79	Fan automatic
	80⇔99	Fan slow
	100⇔119	Fan standard
	120⇔139	Fan high-speed
	140⇔149	Auto1
	150⇔159	Auto2
	160⇔169	Test
	170⇔179	Custom
	180⇔189	Sound 1
	190⇔199	Sound 2
	200⇔219	Reset
	220⇔235	No function
	236⇔239	DIM0
	240⇔243	DIM1
	244⇔247	DIM2
	248⇔251	DIM3
	252⇔255	DIM4
		Note: no use for empty when word control to no effect.

PERSON2

CHANNEL	VALUE	FUNCTION
1	0⇔255	**PAN** 0~540°
2	0⇔255	**PAN FINE** 0~270°
3		**COLOR**
	0 ⇔ 9	NO
	10 ⇔ 19	Red
	20 ⇔ 29	Green
	30 ⇔ 39	Yellow
	40 ⇔ 49	Blue
	50 ⇔ 59	Orange
	60 ⇔ 69	Magenta
	70 ⇔ 79	Light Blue
	80 ⇔ 99	Light Blue → Magenta
	100 ⇔ 119	Magenta → Orange
	120 ⇔ 139	Orange → Blue
	140 ⇔ 159	Blue → Yellow
	160 ⇔ 179	Yellow → Green
	180 ⇔ 199	Green → Red
	200 ⇔ 219	Red → White
	220 ⇔ 255	Rainbow or linear effect
4		**GOBO1**
	0 ⇔ 10	NO GOBO
	11 ⇔ 20	GOBO 1
	21 ⇔ 30	GOBO 2
	31 ⇔ 40	GOBO 3
	41 ⇔ 50	GOBO 4
	51 ⇔ 60	GOBO 5
	61 ⇔ 70	GOBO 6
	71 ⇔ 80	GOBO 7
	81 ⇔ 95	Shaking gobo 7
	96 ⇔ 110	Shaking gobo 6
	111 ⇔ 125	Shaking gobo 5
	126 ⇔ 140	Shaking gobo 4
	141 ⇔ 155	Shaking gobo 3
	156 ⇔ 170	Shaking gobo 2
	171 ⇔ 185	Shaking gobo 1
	186 ⇔ 255	Flow effect
5		**GOBO 2**
	0 ⇔ 10	NO GOBO
	11 ⇔ 20	GOBO 1
	21 ⇔ 30	GOBO 2
	31 ⇔ 40	GOBO 3
	41 ⇔ 50	GOBO 4
	51 ⇔ 60	GOBO 5
	61 ⇔ 70	GOBO 6
	71 ⇔ 85	Shaking gobo 6
	86 ⇔ 100	Shaking gobo 5
	101⇔ 115	Shaking gobo 4
	116 ⇔ 130	Shaking gobo 3
	131 ⇔ 145	Shaking gobo 2
	146 ⇔ 160	Shaking gobo 1
	161 ⇔ 255	Flow effect

1.3 SAFETY WARNING

IMPORTANT：

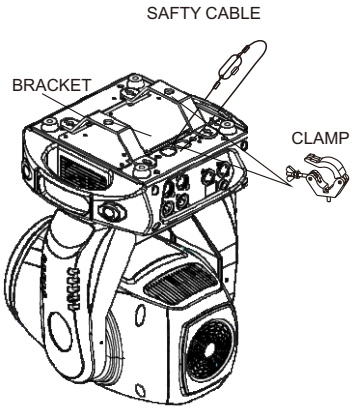
- This product must be installed by a qualified professional.
- All maintenance must be carried out by a qualified electrician.
- A minimum distance of 0.5m must be maintained between the equipment and a combustible surface.
- The product must always be operated in a well ventilated area.
- DO NOT stare directly into the LED light source.
- Always disconnect the power before carrying out any maintenance.
- The earth must always be connected to the ground.
- Ensure that all parts of the equipment are kept clean and free of dust.

2 INSTALLATION

2.1 MOUNTING：

- The fixture can be mounted in any position.
- Always ensure that mounting surface can withstand 10 times the weight of the fixture.
- Always use a safety cable when mounting the fixture in any elevated position.

UPRIGHT



HANGING

IMPORTANT SAFETY NOTE!!
Always use a safety cable when installing this unit!!
Be sure that the safety cable is connected to a solid load-bearing structure.

CHANNEL	VALUE	FUNCTION
8		**GOBO 2**
	0 <=> 10	NO GOBO
	11 <=> 20	GOBO 1
	21 <=> 30	GOBO 2
	31 <=> 40	GOBO 3
	41 <=> 50	GOBO 4
	51 <=> 60	GOBO 5
	61 <=> 70	GOBO 6
	71 <=> 85	Shaking gobo 6
	86 <=> 100	Shaking gobo 5
	101 <=> 115	Shaking gobo 4
	116 <=> 130	Shaking gobo 3
	131 <=> 145	Shaking gobo 2
	146 <=> 160	Shaking gobo 1
	161 <=> 255	Flow effect
9		**GOBO 2 ROTATION**
	0 <=> 60	360 ïndexing
	61 <=> 150	Clockwise rotate from slow to fast
	151 <=> 165	No function
	166 <=> 255	Anti-clockwise rotate from slow to fast
10		**PRISM & PRISM ROTATION**
	0 <=> 4	White light
	5 <=> 9	Prism but not turn
	10 <=> 127	Anti-clockwise rotate from slow to fast
	128 <=> 132	Prism but not turn
	133 <=> 255	Clockwise rotate from slow to fast
11	0 <=> 255	**FOCUS** Far ▲ Near
12	0 <=> 255	**DIMMER** Dark Bright
13		**STROBE**
	0 <=> 31	Close
	32 <=> 63	Open
	64 <=> 95	Strobe: Slow > Fast
	96 <=> 127	Open
	128 <=> 159	Rulse strobe effect: Slow > Fast
	160 <=> 191	Open
	192 <=> 223	Random strobe effect: Slow > Fast
	224 <=> 255	Open
14		**CONTROL**
	0 <=> 19	No function (After 3 S move light show board curve is preferred)
	20 <=> 39	Pan/tilt black activated
	40 <=> 59	Pan/tilt black deactivated
	60 <=> 79	Fan automatic
	80 <=> 99	Fan slow
	100 <=> 119	Fan standard
	120 <=> 139	Fan high-speed
	140 <=> 149	Auto1
	150 <=> 159	Auto2
	160 <=> 169	Test
	170 <=> 179	Custom
	180 <=> 189	Sound 1
	190 <=> 199	Sound 2
	200 <=> 219	Reset
	220 <=> 235	No function
	236 <=> 239	DIM0
	240 <=> 243	DIM1
	244 <=> 247	DIM2
	248 <=> 251	DIM3
	252 <=> 255	DIM4
		Note: no use for empty when word control to no effect.

4 USING A DMX512 CONTROLLER

4.1 CHANNEL ASSIGNMENT

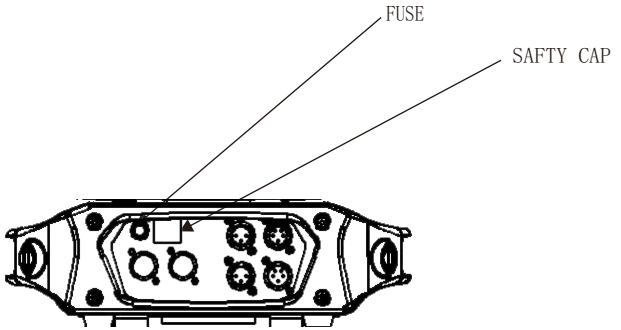
● Note: This product have two DMX512 channel configuration: 【PERSON1】 and【PERSON2】.

PERSON1

CHANNEL	VALUE	FUNCTION
1	0⇐⇒ 255	**PAN** 0~540°
2	0⇐⇒ 255	**PAN FINE** Fine control of tilt movement 0~3°
3	0⇐⇒ 255	**TILT** 0~270°
4	0⇐⇒ 255	**TILT FINE** Fine control of tilt movement 0~3°
5	0⇐⇒ 255	**PAN/TILT SPEED** From fast to slow
6		**COLOR**
	0 ⇐⇒ 9	NO
	10 ⇐⇒ 19	Red
	20 ⇐⇒ 29	Green
	30 ⇐⇒ 39	Yellow
	40 ⇐⇒ 49	Blue
	50 ⇐⇒ 59	Orange
	60 ⇐⇒ 69	Magenta
	70 ⇐⇒ 79	Light Blue
	80 ⇐⇒ 99	Light Blue ⟶ Magenta
	100 ⇐⇒ 119	Magenta ⟶ Orange
	120 ⇐⇒ 139	Orange ⟶ Blue
	140 ⇐⇒ 159	Blue ⟶ Yellow
	160 ⇐⇒ 179	Yellow ⟶ Green
	180 ⇐⇒ 199	Green ⟶ Red
	200 ⇐⇒ 219	Red ⟶ White
	220 ⇐⇒ 255	Rainbow or linear effect
7		**GOBO1**
	0 ⇐⇒ 10	NO GOBO
	11 ⇐⇒ 20	GOBO 1
	21 ⇐⇒ 30	GOBO 2
	31 ⇐⇒ 40	GOBO 3
	41 ⇐⇒ 50	GOBO 4
	51 ⇐⇒ 60	GOBO 5
	61 ⇐⇒ 70	GOBO 6
	71 ⇐⇒ 80	GOBO 7
	81 ⇐⇒ 95	Shaking gobo 7
	96 ⇐⇒ 110	Shaking gobo 6
	111 ⇐⇒ 125	Shaking gobo 5
	126 ⇐⇒ 140	Shaking gobo 4
	141 ⇐⇒ 155	Shaking gobo 3
	156 ⇐⇒ 170	Shaking gobo 2
	171 ⇐⇒ 185	Shaking gobo 1
	186 ⇐⇒ 255	Flow effect

2.2 FUSE REPLACEMENT

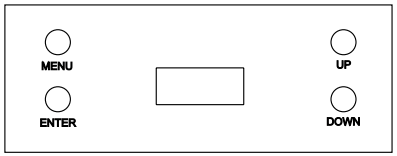
- Remove the safety cap by a screwdriver.
- Fetch the old fuse from safety cap.
- Install a new fuse.
- Install the safety cap.



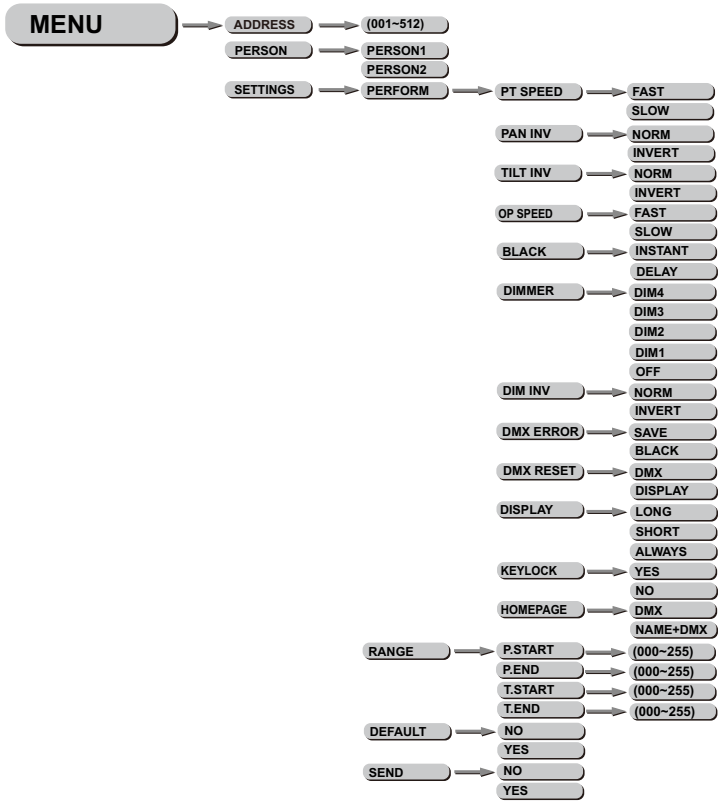
3 DISPLAY PANEL OPERATION

3.1 BASIC

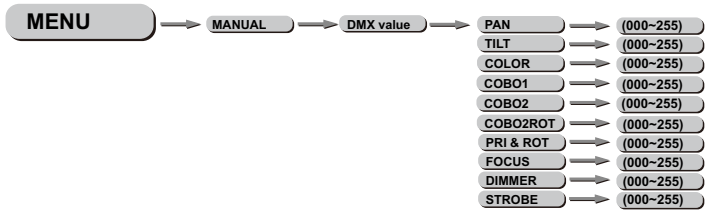
【 MENU 】Scroll through the main menu or exit from the current sub-menu
【**ENTER**】Enter the currently selected menu or confirm the current function value
【 **DOWN**】Scroll 'DOWN' through the menu list or decrease the value of the current function
【 **UP** 】Scroll 'UP' through the menu list or increase the value of the Current function



3.2 MENU



3.72 MANUAL



●Adjust the values of【***PAN/TILT/COLOR/COBO1/COBO2/COBO2ROT/ PRI & ROT/FOCUS/DIMMER/STROBE***】in order to carry out manual control

3.71 ACCESS

- 【***SETTLOCK***】menu, select【***ON***】to enable access to 【***SETTINGS***】menu
- 【***SERV LOCK***】menu, select【***ON***】to enable access to 【***SERVICE***】menu

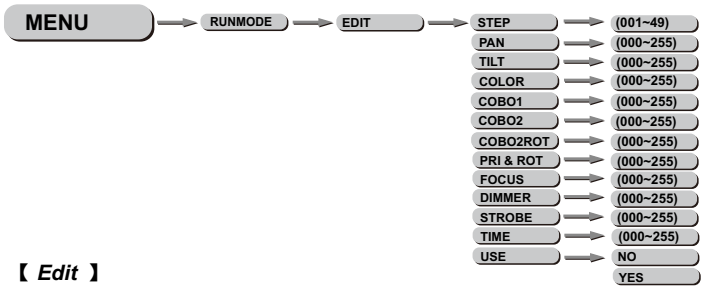
3.82 INFO

- 【 ***INFO*** 】 software version number

3.83 CONTENT

- 【***DISPLAY 1***】menu, edit first line of display content
- 【***SEND***】 menu, select 【***YES***】in order to transfer display content to all fixtures currently connected via data cable

3.62 EDIT



【 *Edit* 】

- Enter the【 Edit 】mode to edit the custom programs by adjusting the value of【***STEP***】,【***PAN***】,【***TILT***】,【COLOR】,【COBO2】,【COBO2ROT】, 【PRI & ROT】,【FOCUS】,【***DIMMER***】,【***STROBE***】,【 ***TIME***】
- Enter 【 Use】 and select 【***Yes***】 to run the steps user need.

Note: if user want to circulate the created steps, please set the last step 's 【***Time***】 as 0

For example, there are 3 steps, the setting should be like beloved:

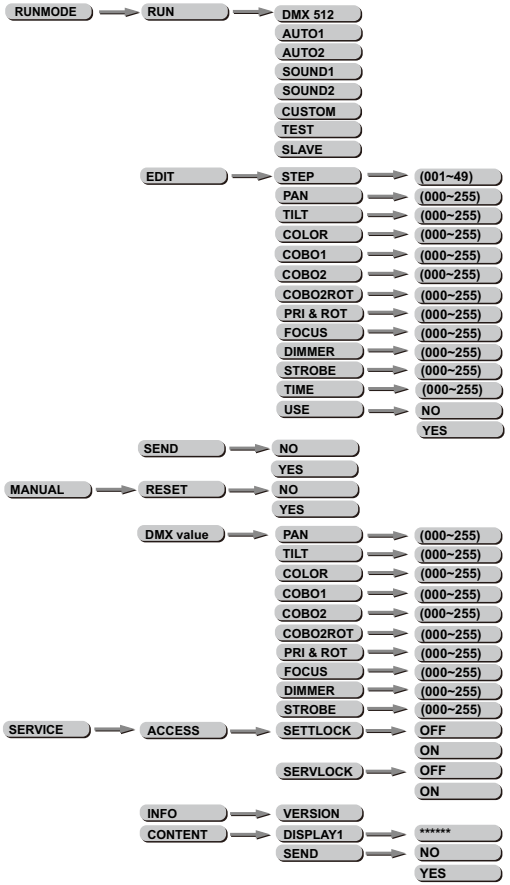
Step 1 【***Time***】 = 4 【 Use】 = Yes
Step 2 【***Time***】 = 5 【 Use】 = Yes
Step 3 【***Time***】 = 0 【 Use】 = Yes

3.63 SEND

- 【***SEND***】menu, select 【***YES***】 to send all custom programs to in-line fixtures.

3.71 MANUAL

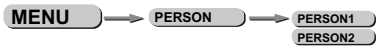
- 【 RESET】menu, select【YES/NO】to carry out full fixture reset



3.3 DMX ADDRESS (ADDRESS)

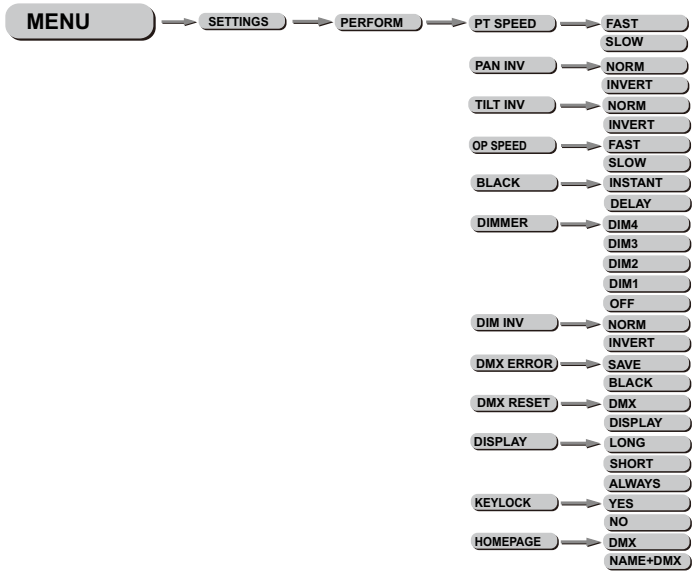
- Enter the【***DMX***】mode to set the DMX ADDRESS.

3.4 PERSONALITY (PERSON)



- Enter the【***PERSON***】mode to select DMX mode:【 **PERSON1** 】, 【**PERSON 2**】.

3.51 PERFOR MANCE(PERFORM)

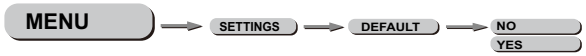


- 【***PT SPEED***】menu, select 【***Slow/Fast***】for required PAN/TILT movement speed.
- 【***PAN INV***】menu, select 【***NORM/INVERT***】for normal/inverted control of the PAN function
- 【***TILT INV***】menu, select 【***NORM/INVERT***】for normal/inverted control of the TILT function
- 【***OP SPEED***】menu, select【***SLOW/FAST***】for required optics speed
- 【***BLACK***】menu, select 【***INSTANT***】for immediate activation of PAN/TILT blackout when selected using the control channel or 【***DELAY***】 for 3 second delay before activation.【***DIMMER***】 menu for selection of 【***DIM1/DIM2/DIM3/DIM4/OFF***】 special dimming curves
- 【***DIM INV***】menu, select 【***NORMAL/INVERT***】for normal/inverted control of DIMMING function
- 【***DMXerror***】menu, select 【***SAVE***】to maintain last command or 【***BLACK***】 for blackout in case of DMX error。
- 【***DMXreset***】menu, select 【***DMX***】to allow remote reset using DMX controller or 【***DISPLAY***】for reset only available at on-fixture display
- 【***DISPLAY***】menu, select 【***LONG/SHORT/ALWAYS***】to determine the time mode for the display backlight.
- 【***KEYLOCK***】menu, select 【***YES***】in order to lock the display when not in use or on start-up.
- 【***HOMESCREEN***】menu, select【***DMX***】to display DMX address or 【***NAME***】to display user-created content when display not in use.

3.52 RANGE

- 【***P/START***】 Set pan start value 【***000~255***】
- 【***P/END***】 Set pan finish value 【***000~255***】
- 【***T/START***】 Set Tilt start value 【***000~255***】
- 【***T/END***】 Set Tilt finish value 【***000~255***】

3.53 DEFAULT

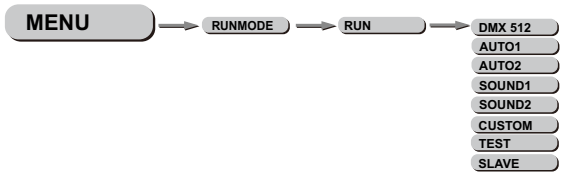


- 【***DEFAULT***】menu, select【***YES***】 to reset all settings to default.

3.54 SEND

- 【***SEND***】 menu, select 【***YES***】 to send all settings to in-line fixtures.

3.61 RUN



- 【***RUN***】menu, select required run mode.